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Attachment IV
INTERCONNECTION

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INTERCONNECTION

Section 1. Local Interconnection Trunk Arrangement

1.1 The Parties shall terminate Local Traffic and intraLATA/interLATA toll traffic originating on each other's networks as follows:

1.1.1 Initially, the Parties shall make available to each other two-way trunks, to be used one-way, for the reciprocal exchange of combined Local Traffic, non-equal access intraLATA toll traffic, and local transit traffic to other ILECs. In quarterly joint planning meetings pursuant to Section 8.3, where mutually agreed, the Parties may combine these trunk groups on a single shared two-way trunk group.

1.1.2 Bell Atlantic shall make available to MCIm a two-way trunk group, to Bell Atlantic's appropriate access tandem(s), to be used two-way, for the exchange of equal access traffic between MCIm and purchasers of Bell Atlantic's switched Exchange Access Services.

1.1.3 The Parties shall make available to each other trunks, to connect the originating Party's Switch to the appropriate E911 tandem of the other Party, or to connect the originating Party's Switch to the appropriate 911 PSAP.

1.1.4 **Bell Atlantic Operator Services Trunks**

1.1.4.1 The Parties shall make available to each other trunks to connect the originating Party's Switch to the other Party's Operator Service center for operator-assisted Line Status Verification/Verification and Call Interrupt.

1.1.4.2 For traffic from the Bell Atlantic network to MCIm for Operator Services, Bell Atlantic shall provide one trunk group per NPA served by Bell Atlantic.

1.1.4.3 Bell Atlantic shall provide such trunks as one-way trunks from the Bell Atlantic network to the MCIm network.

1.1.5 Bell Atlantic shall make available to MCIm trunks to connect MCIm's Switch to Bell Atlantic's Directory Assistance center in instances where MCIm is purchasing Bell Atlantic's Directory Assistance service.

1.1.6 It is recognized by the Parties that there is no technical requirement to segregate local and toll traffic from MCIm to Bell Atlantic, or from Bell Atlantic to MCIm, provided that the classification of the traffic can reliably be identified by the Parties in accordance with the terms of Section 7.5 herein.

1.2 Interconnection Point

1.2.1 Definitions

1.2.1.1 "Interconnection Point" or "IP" means the switching, Wire Center, or other similar network node in a Party's network at which such Party accepts Local Traffic from the other Party. Bell Atlantic IPs include any Bell Atlantic End Office, for the delivery of traffic terminated to numbers served out of that End Office, and/or any Bell Atlantic access Tandem Office, for the delivery of traffic to numbers served out of any Bell Atlantic End Office that subtends that access Tandem Office. MCIm IPs include any MCIm Switch, for the delivery of traffic terminated to numbers served out of that Switch.

1.2.1.2 "Point of Interconnection" or "POI" means the physical point that establishes the technical interface, the test point, and the operational responsibility hand-off between the Parties for the Local Interconnection of their networks. Unless otherwise mutually agreed, MCIm will be responsible for engineering and maintaining its network on its side of the POI and Bell Atlantic will be responsible for engineering and maintaining its network on its side of the POI.

1.2.2 MCIm shall establish at Technically Feasible points in Bell Atlantic's network at least one POI in each of the LATAs in which MCIm originates local traffic and interconnects with Bell Atlantic; provided that Bell Atlantic may request relief from the Commission if Bell Atlantic reasonably believes that MCIm has manipulated the designation of POIs in order to maximize the transport revenues Bell Atlantic must pay to MCIm. The Party delivering traffic to the other Party's IP(s) shall do so by purchasing from the other Party transport between the POI(s) and the IP(s), if necessary. MCIm shall deliver traffic to at least one IP in each Bell Atlantic access tandem serving area to which its end users have local calling; provided, however, that if MCIm delivers traffic to only one IP in an access tandem serving area, the IP shall be the access tandem. Bell Atlantic shall deliver traffic to at least one MCIm IP in each LATA.

1.2.2.1 If and when the Parties choose to interconnect at a fiber optic mid-span meet, MCIm and Bell Atlantic will mutually agree on the technical, operational and compensation issues associated with each specific mid-span meet implemented, and jointly provision the fiber optic facilities that connect the two networks in accordance with such agreement.

1.2.2.2 In response to a Party's request for any POI, the other Party shall provide any information in its possession or control regarding the environmental conditions of those POIs whose location is within its possession or control. The Party controlling the POI shall notify the requesting Party of any hazardous environmental conditions of the POI, including the existence and condition of asbestos, lead paint, hazardous substance contamination, and the like. The Party controlling the POI shall respond to any such request within ten (10) business days for manned sites and within no more than thirty (30) calendar days for unmanned sites.

1.2.2.3 The Party controlling a POI shall allow the requesting Party to perform at reasonable hours, reasonable environmental site investigations, including, but not limited to, asbestos surveys, that the requesting Party deems to be necessary in support of its interconnection needs.

1.2.2.4 If interconnection is complicated by the presence of environmental contamination or hazardous materials, and an alternative route is available within the space controlled by the Party controlling an POI, then such Party shall make such alternative route available for the requesting Party's consideration.

Section 2. Compensation Mechanisms

2.1 Point of Interconnection

2.1.1 Each (originating) Party is responsible for bringing their traffic to a POI.

2.2 Compensation for Local Traffic Transport and Termination

2.2.1 The POI determines the point at which the originating carrier shall pay the terminating carrier for the Transport and Termination of local traffic. The following compensation elements shall apply:

2.2.1.1 "Transport," which includes the transmission of Local Traffic from the POI to the terminating carrier's IPs, and any necessary Tandem Switching, and any necessary transport between the terminating carrier's access Tandem Office and the terminating carrier's End Office Switch that directly serves the called end user.

2.2.1.2 "Termination," which includes the switching of Local Traffic at the terminating carrier's End Office Switch.

2.3 When an MCIm customer places a call to a Bell Atlantic customer, MCIm will hand off that call to Bell Atlantic at the POI. Conversely, when Bell Atlantic hands over Local

Traffic to MCIm for MCIm to transport and terminate, Bell Atlantic must use an established POI.

2.4 MCIm may designate as its means of delivering traffic to a POI any Technically Feasible methods, including but not limited to, Collocation using electronic or manual cross-connect points via a digital signal access point ("DSAP"), or mutually-agreed mid-span meets. The transport and termination charges for Local Traffic delivered to POI shall be as follows:

2.4.1 When Local Traffic from MCIm is terminating on Bell Atlantic's network through the Bell Atlantic access Tandem Office IP, MCIm will pay Bell Atlantic transport charges from the POI to the Tandem Office for Dedicated Transport. Alternatively, MCIm may choose to collocate at the Bell Atlantic access Tandem Office and pay applicable Collocation and cross-connect charges. MCIm may also choose to purchase Bell Atlantic Dedicated Transport from the POI to a Collocation site established by MCIm or a third Party at the Bell Atlantic access Tandem Office IP. MCIm shall also pay a charge for the tandem termination rate. The tandem termination rate includes Tandem Switching, Common Transport to the End Office, and End Office termination and will be charged at the rate set forth in Attachment I.

2.4.2 When Local Traffic from Bell Atlantic is terminating on MCIm's network through the POI, Bell Atlantic shall pay MCIm transport charges from the POI to the MCIm Switch for Dedicated Transport. This transport charge shall not exceed Bell Atlantic's equivalent charge. Bell Atlantic shall also pay a charge symmetrical to its own charges to MCIm for Tandem Switching, Tandem Office to End Office transport, and End Office termination, provided that the MCIm Switch covers an area comparable to the Bell Atlantic access Tandem Office serving the same area. If the area covered by the MCIm Switch is comparable instead to the area of an End Office, Bell Atlantic shall not pay the charges for Tandem Switching or Tandem Office to End Office transport.

2.4.3 MCIm may choose to establish direct trunking to any given Bell Atlantic End Office from the POI. If MCIm leases trunks from Bell Atlantic, it shall pay charges for Dedicated Transport. For calls terminating from MCIm to subscribers served by these directly-trunked end offices, MCIm shall also pay for Local Traffic termination at the End Office termination rate. For Bell Atlantic Local Traffic terminating to MCIm over the direct End Office trunking, compensation payable by Bell Atlantic shall be the same as that detailed in Section 2.4.2 above.

Section 3. Signaling

3.1 Signaling protocol. The Parties will interconnect their networks using SS7 signaling as defined in Bellcore documents GR-905-CORE, Issue 1, March 1995, Bellcore Special Report SR-TSV-002275, BOC Notes on the LEC Networks-Signaling, Bellcore Generic

Requirements GR-317, Issue 1, February 1994 and GR-394, Issue 1, February 1994, including ISDN User Part ("ISUP") for trunk signaling and Transaction Capabilities Application Part ("TCAP") for CCS-based features in the interconnection of their networks.

3.2 The Parties will provide CCS to each other in conjunction with all trunk groups supporting intraLATA, local, transit, and toll traffic. CCS will not be provided in conjunction with trunk groups supporting Operator Services (Call Completion and Directory Assistance), 911, or where CCS has not been deployed by the originating carrier. The Parties will cooperate on the exchange of Transactional Capabilities Application Part ("TCAP") messages to facilitate full inter-operability of CCS-based features between their respective networks, including all CLASS features and functions. All CCS signaling parameters will be provided including Automatic Number Identification ("ANI"), originating line information ("OLI"), calling party category, Charge Number, *etc.* For terminating FGD, Bell Atlantic will pass CPN if it receives CPN from FGD carriers. All privacy indicators will be honored. Where available, network signaling information such as Transit Network Selection ("TNS") parameter (CCS platform) and CIC/OZZ information (non-CCS environment) will be provided by either Party wherever such information is needed for call routing or billing. The Parties will generally conform to OBF adopted guidelines pertaining to TNS and CIC/OZZ codes in accordance with Section 15.4 of Part A.

3.3 Refer to Attachment III, Section 11 for detailed terms of SS7 Network Interconnection.

3.4 Standard interconnection facilities shall be ESF with B8ZS line code. Where ESF/B8ZS is not available, both Parties will agree to use other interconnection protocols on an interim basis until the standard ESF/B8ZS is available. For specific arrangements not deployed as ESF/B8ZS, Bell Atlantic will provide anticipated dates of ESF/B8ZS availability for these facilities.

3.4.1 Where MCIm is unwilling to utilize an alternate interconnection protocol, MCIm will provide Bell Atlantic with a request for 64 kbps Clear Channel Capability ("64K CCC") trunk quantities consistent with the quarterly forecasting agreements between the Parties pursuant to Section 8.3. Upon receipt of this request, the Parties will begin joint planning for the engineering, procurement, and installation of the segregated 64K CCC Local Interconnection Trunk Groups, and the associated B8ZS Extended Super Frame ("ESF") facilities, for the sole purpose of transmitting 64K CCC data calls between MCIm and Bell Atlantic. Where additional equipment or network rearrangements are required, such equipment and rearrangements will be obtained, engineered, installed, and performed on the same basis and with the same intervals as any similar subscriber specific special construction jobs for IXCs, CLECs, or Bell Atlantic internal subscriber demand for 64K CCC trunks. Such equipment and rearrangements shall be charged at Commission-approved, applicable special construction rates.

Should the foregoing not be adequate, MCIm may invoke the BFR process. Where Technically Feasible and mutually agreed, these trunks will be established as two-way.

Section 4. Network Servicing

4.1 **Trunk Forecasting**

4.1.1 The Parties shall work toward the development of their forecasting responsibilities for traffic utilization over trunk groups. Orders for trunks that exceed forecasted quantities for forecasted locations will be accommodated as facilities and/or equipment are available. Parties shall make all reasonable efforts and cooperate in good faith to develop alternative solutions to accommodate orders when facilities are not available. Intercompany forecast information must be provided by MCIm to Bell Atlantic on a quarterly basis. The forecasts shall include:

4.1.1.1 Yearly forecasted trunk quantities to each of Bell Atlantic's End Offices and access Tandem Office(s) affected by the exchange of traffic (which include measurements that reflect actual Tandem and End Office Local Interconnection and meet point trunks and tandem-subtending Local Interconnection End Office equivalent trunk requirements for no more than two years (current plus one year)) by traffic type (local/toll, operator services, 911, etc.), Access Carrier Terminal Location ("ACTL"), interface type (*e.g.*, DS1), and trunks in service each year (cumulative);

4.1.1.2 The use of A location/Z location Common Language Location Identifier ("CLLI-MSG"), which are described in Bellcore documents BR 795-100-100 and BR 795-400-100; and

4.1.1.3 Descriptions of major network projects that affect the other Party will be provided in the forecasts. Major network projects include, but are not limited to, trunking or network rearrangements, shifts in anticipated traffic patterns, or other activities by either Party that are reflected by a significant increase or decrease in trunking demand for the following forecasting period.

4.1.2 Parties shall meet to review and reconcile their forecasts if forecasts vary significantly.

4.1.2.1 Because each Party's trunking requirements will, at least during an initial period, be dependent on the subscriber segments to whom MCIm decides to market its services, Bell Atlantic will be largely dependent on MCIm to provide accurate trunk forecasts for both inbound (from Bell Atlantic) and outbound (from MCIm) traffic. Bell Atlantic will, as an

initial matter, and upon receipt of a forecast from MCIm, order a sufficient number of trunks from MCIm for Local Traffic and intraLATA toll, to MCIm from Bell Atlantic, to handle the traffic forecast. Upon the establishment of any new set of trunks for traffic, each Party will monitor traffic for up to ninety (90) days, and will, as necessary, either augment trunks or disconnect trunks, based on the application of reasonable engineering criteria to the actual traffic volume experienced. If, after such ninety (90) day period, either Party has determined that the trunks are not warranted by actual traffic volumes, then, it shall inform the other in writing. Thereafter, within ten (10) business days of receipt of the written notice, the Party receiving notice shall inform the other Party of whether it desires to keep in operation any unused trunk. Each Party may hold the other financially responsible for such trunks, installed at the request of the other Party, retroactive to the start of the ninety (90) day period until such time as they are justified by actual traffic volumes, based on the application of reasonable engineering criteria.

4.1.3 Each Party shall provide a specified point of contact for planning, forecasting, and trunk servicing purposes.

4.1.4 Trunking can be established to Tandem or End Offices or a Combination Class 5/Class 4 via either one-way or two-way trunks in accordance with the standards set forth in Section 1 above. Trunking will be at the DS-0 level, DS-1 level, or higher, as mutually agreed in accordance with the standards set forth in Section 1 of this Attachment. Initial trunking will be established between the MCIm switching centers and Bell Atlantic's access Tandem Office(s). The Parties may use direct End Office trunking for their traffic when deemed appropriate. Requests for direct End Office trunking will not be unreasonably denied.

4.2 **Grade of Service**

4.2.1 A blocking standard of one percent (.01) during the average busy hour, as defined by each Party's standards, for final trunk groups between MCIm and Bell Atlantic shall be maintained.

4.3 **Trunk Servicing**

4.3.1 Orders between the Parties to establish, add, change or disconnect trunks shall be processed by use of an Access Service Request ("ASR"), or another industry standard eventually adopted to replace the ASR for local service ordering.

4.3.2 As discussed in this Agreement, both Parties will manage the capacity of their Local Interconnection Trunk Groups. Bell Atlantic will issue an ASR to

MCIm to trigger changes Bell Atlantic desires to the Bell Atlantic Local Interconnection Trunk Groups based on Bell Atlantic's capacity assessment. MCIm will issue an ASR to Bell Atlantic to trigger changes MCIm desires to the MCIm Local Interconnection Trunk Groups based on MCIm's capacity assessment.

4.3.3 The standard interval used for the provisioning of local interconnection trunk groups shall be ten (10) business days for orders of fewer than ninety-six (96) DS-0 trunks. Orders beyond this amount shall be determined on an individual case basis. Where feasible, Bell Atlantic will expedite installation, upon MCIm's request.

4.3.4 Orders that comprise a major project that directly impacts the other Party may be submitted at the same time, and their implementation shall be jointly planned and coordinated. Major projects are those that require the coordination and execution of multiple orders or related activities between and among Bell Atlantic and MCIm work groups, including but not limited to the initial establishment of Local Interconnection or Meet Point trunk groups and service in an area, facility grooming, or network rearrangements.

4.3.5 MCIm and Bell Atlantic agree to exchange escalation lists which reflect contact personnel including vice president-level officers. These lists shall include name, department, title, phone number, and fax number for each person. MCIm and Bell Atlantic agree to exchange an up-to-date list promptly following changes in personnel or information.

Section 5. Network Management

5.1 **Protective Protocols**

5.1.1 Either Party may use protective network traffic management controls such as 7-digit and 10-digit code gaps on traffic toward the other Party's network, when required to protect the public switched network from congestion due to facility failures, Switch congestion or failure, or focused overload. MCIm and Bell Atlantic will immediately notify each other of any protective control action planned or executed.

5.2 **Expansive Protocols**

5.2.1 Where the capability exists, originating or terminating traffic reroutes may be implemented by either Party to temporarily relieve network congestion due to facility failures or abnormal calling patterns. Reroutes will not be used to circumvent normal trunk servicing. Expansive controls will only be used when mutually agreed to by the Parties.

5.3 **Mass Calling**

5.3.1 MCIm and Bell Atlantic shall cooperate and share pre-planning information, where available, regarding cross-network call-ins expected to generate large or focused temporary increases in call volumes, to prevent or mitigate the impact of these events on the public switched network.

Section 6. Line Status Verification And Verification With Call Interruption

6.1 Each Party shall offer Line Status Verification ("LSV") and Verification and Call Interrupt ("VCI") services to enable its subscribers to verify and/or interrupt calls of the receiving Party's subscribers. The receiving Party shall accept and respond to LSV and VCI requests from the operator bureau of the originating Party, provided that the originating Party has ordered the requisite underlying LSV/VCI service from the receiving Party.

6.2 The receiving Party operator shall only verify the status of the line or interrupt the line to inform the called Party that there is a call waiting. The receiving Party operator will not complete the telephone call of the subscriber initiating the LSV/VCI request. The receiving Party operator will only make one LSV/VCI attempt per subscriber operator bureau telephone call, and the applicable charges apply whether or not the called Party releases the line.

6.3 Each Party's operator bureau shall accept LSV and VCI inquiries from the operator bureau of the other Party in order to allow transparent provision of LSV/VCI traffic between the Parties' networks.

6.4 Each Party shall route LSV/VCI traffic inquiries over separate direct trunks (and not the local/intraLATA/interLATA trunks) established between the Parties' respective operator bureaus. Each Party shall offer interconnection for LSV/VCI traffic at its Operator Services tandem office or other mutually agreed point in the LATA. Separate LSV/VCI trunks will be directed to the Operator Services tandem office designated by the receiving Party. The originating Party shall outpulse the appropriate NPA, ATC Code, and Routing Code (operator code) to the receiving Party.

6.5 When a LSV/VCI request for a ported number is directed to either Party's operator and the query is not successful (*i.e.*, the request yields an abnormal result), the operator shall confirm whether the number has been ported and shall direct the request to the appropriate operator. The Parties shall work cooperatively to develop this process, which does not exist as of the Effective Date.

6.6 Compensation: Each Party shall charge the other Party for LSV and VCI at rates specified in Attachment I.

Section 7. Usage Measurement

7.1 Each Party shall calculate terminating interconnection minutes of use based on standard Automatic Message Accounting ("AMA") recordings made within each Party's network, these recordings being necessary for each Party to generate bills to the other Party.

7.2 Measurement of minutes of use over Local Interconnection Trunk Groups shall be in actual conversation seconds. The total conversation seconds over each individual Local Interconnection Trunk Group will be totaled for the entire monthly bill-round and then rounded to the next whole minute.

7.3 For billing purposes, each Party shall pass Calling Party Number ("CPN") information on each call carried over the traffic exchange trunks at such time as the originating Switch is equipped for SS7 and from all switches no later than December 31, 1998. At such time as either Party has the ability, as the Party receiving the traffic, to use such CPN information to classify on an automated basis traffic delivered by the other Party as either Local Traffic or toll traffic, such receiving Party shall bill the originating Party the Local Traffic termination rates, intrastate Exchange Access rates, or interstate Exchange Access rates applicable to each minute of traffic for which CPN is passed, as provided in Attachment I and applicable Tariffs.

7.4 If, under the circumstances set forth in Section 7.3, the originating Party does not pass CPN on up to ten percent (10%) of calls, the receiving Party shall bill the originating Party the Local Traffic termination rates, intrastate Exchange Access rates, intrastate/interstate transit traffic rates, or interstate Exchange Access rates applicable to each minute of traffic, as provided in Attachment I and applicable Tariffs, for which CPN is passed. For the remaining up to ten percent (10%) of calls without CPN information, the receiving Party shall bill the originating Party for such traffic at Local Traffic termination rates, intrastate Exchange Access rates, intrastate/interstate transit traffic rates, or interstate Exchange Access rates applicable to each minute of traffic, as provided in Attachment I and applicable Tariffs, in direct proportion to the minutes of use of calls passed with CPN information.

7.5 If the originating Party fails to pass CPN on more than ten percent (10%) of calls, either Party may require that separate trunk groups for Local Traffic and toll traffic be established. If neither Party requests such separate trunk groups, or if the receiving Party lacks the ability to use CPN information to classify on an automated basis traffic delivered by the other Party as either Local Traffic or toll traffic, and the originating Party desires to combine Local Traffic and toll traffic on the same trunk group, it will supply an auditable Percent Local Usage ("PLU") report quarterly, based on the previous three months' traffic, and applicable to the following three months. If the originating Party also desires to combine interstate and intrastate toll traffic on the same trunk group, it will supply an auditable Percent Interstate Usage ("PIU") report quarterly, based on the previous three months' terminating traffic, and applicable to the following three months.

In lieu of the foregoing PLU and/or PIU reports, the Parties may agree to provide and accept reasonable surrogate measures for an agreed-upon period.

7.6 Measurement of billing minutes for purposes of determining terminating compensation shall be in conversation seconds.

Section 8. Responsibilities of the Parties

8.1 Bell Atlantic and MCIm agree to treat each other fairly and nondiscriminatorily for all items included in this Agreement, or related to the support of items included in this Agreement.

8.2 MCIm and Bell Atlantic agree to exchange such reports and/or data as provided in this Attachment in Section 7 to facilitate the proper billing of traffic. Either Party may request an audit of such usage reports on no fewer than ten (10) business days' written notice and any audit shall be accomplished during normal business hours at the office of the Party being audited. Such audit must be performed by a mutually agreed-to independent auditor paid for by the Party requesting the audit and may include review of the data described in Section 7 above. Such audits may be requested within six (6) months of having received the PLU factor and usage reports from the other Party.

8.3 MCIm and Bell Atlantic will review engineering requirements on a quarterly basis and establish forecasts for trunk and facilities utilization provided under this Agreement. Bell Atlantic and MCIm will work together to begin providing these forecasts within thirty (30) days from the Effective Date of this Agreement. New trunk groups will be implemented as dictated by engineering requirements for either Bell Atlantic or MCIm.

8.4 Unless otherwise mutually agreed for specific facility arrangements, Bell Atlantic shall be solely responsible for Control Office functions for local interconnection trunks and trunk groups that Bell Atlantic orders from MCIm. In addition, Bell Atlantic shall be solely responsible for the overall coordination, installation, and maintenance responsibilities for the trunks and trunk groups that MCIm orders from Bell Atlantic. The Parties shall agree upon the assignment of Control Office, coordination, installation, and maintenance responsibilities for shared interconnection trunks and for mid-span meet trunks at such time as the Parties agree to install each such facility.

8.5 MCIm and Bell Atlantic shall:

8.5.1 Provide trained personnel with adequate and compatible test equipment to work with each other's technicians.

8.5.2 Notify each other when there is any change affecting the service requested, including the due date.

8.5.3 Coordinate and schedule testing activities of their own personnel, and others as applicable, to ensure its interconnection trunks/trunk groups are installed per the interconnection order, meet agreed-upon acceptance test requirements, and are placed in service by the due date.

8.5.4 Perform sectionalization to determine if a trouble is located in its facility or its portion of the interconnection trunks prior to referring the trouble to each other.

8.5.5 Advise each other's Control Office if there is an equipment failure which may affect the interconnection trunks.

8.5.6 Provide each other with a trouble reporting/repair contact number that is readily accessible and available twenty-four (24) hours/seven (7) days a week. Any changes to this contact arrangement must be immediately provided to the other Party.

8.5.7 Provide to each other test-line numbers to enable testing of interconnection trunks.

8.5.8 Cooperatively plan and implement coordinated repair procedures for the meet point and local interconnection trunks and facilities to ensure trouble reports are resolved in a timely and appropriate manner.

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Attachment V
COLLOCATION

ATTACHMENT V

COLLOCATION

Section 1. Introduction

This Attachment sets forth the requirements for Collocation. Bell Atlantic shall provide MCIm Collocation in accordance with the terms of its FCC and Virginia Collocation Tariffs and the provisions of this Attachment V. Any conflicts between the Tariff and the provisions hereof shall be resolved as set forth in Section 1, Part A of this Agreement.

Section 2. Technical Requirements

2.1 Bell Atlantic shall provide space, as reasonably requested by MCIm, to meet MCIm's needs for placement of equipment. MCIm may collocate only that equipment which is used for interconnection and access to Network Elements. Remote switching equipment, if any is collocated, may not be used for switching.

2.1.1 To the extent practicable and consistent with the needs of Bell Atlantic and other collocators, Bell Atlantic will use reasonable efforts to place MCIm's physically collocated interconnection space so as to permit MCIm to expand its collocated interconnection space to a contiguous area, up to a maximum of four-hundred (400) square feet.

2.1.2 Subject to availability, physically-collocated interconnection will be provided on a first-come, first-served basis in a physically-collocated office until available Collocation space and facilities are exhausted. In such instances where two (2) or more requests for space are received at the same time for a Central Office building with limited space, a lottery will be administered to determine the order of selection of applicants.

2.1.3 If the space remaining in the portion of the Central Office in which physical Collocation is provided (the "Collocation Space") is less than one-hundred (100) square feet or otherwise configured so as to be unsuited to meet the requirements of another collocator that has requested such space, the existing collocator(s) shall have the option of applying for any portion(s) of the remaining space.

2.1.4 In the event that MCIm withdraws its request for Collocation service prior to completion, Bell Atlantic will refund the pre-paid design and planning fee, less actual costs incurred by Bell Atlantic.

2.1.5 Upon receipt of MCIm's first Collocation application form, Bell Atlantic will, upon request, make available to MCIm at cost any applicable Bellcore or Bell Atlantic-specific documentation as listed in Bell Atlantic's Tariff F.C.C. No.

1, Section 19.3.5. MCIm is responsible for obtaining all other applications listed in Appendix 1 to Part A.

2.1.6 At the time Bell Atlantic submits contractor bids to MCIm, Bell Atlantic shall provide any information in its possession or control regarding the environmental condition of the space provided for those sites, where the information is reasonably available. Bell Atlantic shall also notify MCIm at such time of the following conditions of which it is aware: the existence and condition of asbestos, lead paint, hazardous substance contamination, and the like.

2.1.7 Bell Atlantic shall allow MCIm to perform reasonable environmental site investigations within the designated Collocation Space, including, but not limited to, asbestos surveys, which MCIm deems to be necessary in support of its Collocation needs, upon completion of Bell Atlantic's required construction work for the MCIm Collocation space.

2.1.8 If the space provided for the placement of equipment, interconnection, or provision of service contains environmental contamination or hazardous material, particularly but not limited to asbestos or lead paint which makes the placement of such equipment or interconnection hazardous, Bell Atlantic shall offer an alternative space, if available at the same Bell Atlantic premise, for MCIm's consideration.

2.2 Bell Atlantic shall provide intraoffice facilities (*e.g.*, DS1, DS3, DS0, OC3, OC12, OC48, and STS-1, terminations where and when available) as requested by MCIm to meet MCIm's need for placement and interconnection of equipment, where Technically Feasible.

2.3 Bell Atlantic agrees to allow MCIm's employees and designated agents unrestricted access to MCIm dedicated space in Bell Atlantic offices twenty-four (24) hours per day each day of the week. Bell Atlantic may place reasonable security restrictions on access by MCIm's employees and designated agents to the MCIm Collocated space in Bell Atlantic offices, in accordance with Attachment IX.

2.4 Where Technically Feasible, Bell Atlantic shall provide the connection between the equipment in the collocated spaces of two (2) or more Telecommunications Carriers permitting such Telecommunications Carrier(s) to interconnect its network with that of another collocating Telecommunications Carrier at Bell Atlantic premises, provided that the collocated equipment is used for interconnection with Bell Atlantic or for access to Bell Atlantic's Network Elements.

2.5 Bell Atlantic shall permit MCIm to subcontract the construction of physical Collocation arrangements within the MCIm Collocation space, to Bell Atlantic's construction specifications, with contractors approved by Bell Atlantic, provided, however, that Bell Atlantic shall not unreasonably withhold approval of contractors.

Approval by Bell Atlantic shall be based on the same criteria it uses in approving contractors for its own purposes.

2.6 MCIm may order from Bell Atlantic basic business telephone service at the Collocation space, as may be required for administrative purposes.

2.7 Bell Atlantic shall provide lighting, ventilation, power, heat, air conditioning, and other environmental conditions for MCIm's space and equipment in substantial conformance with Bell Communication Research ("Bellcore") Network Equipment-Building System ("NEBS") standards TR-EOP-000063. MCIm may order additional lighting and AC power in accordance with Bell Atlantic's Collocation Tariffs.

2.8 Bell Atlantic shall provide access to bathrooms and drinking water within a collocated facility on a twenty-four (24) hours per day, seven (7) days per week basis for authorized MCIm personnel and agents in facilities where such amenities are located in Collocation common areas. Where such amenities are not available within a Collocation common area and where Bell Atlantic has employees available on the premise, Bell Atlantic shall provide an escort for access to such facilities.

2.9 Bell Atlantic shall provide all ingress and egress of fiber and power cabling to MCIm Collocated Spaces in compliance with MCIm's reasonable cable diversity requirements. The specific level of diversity requested for each site or Network Element will be provided in the Collocation request. MCIm shall pay Bell Atlantic any reasonable special construction charges incurred in providing MCIm the requested level of diversity where said diversity is not available.

2.10 In a Collocation arrangement hereunder, Bell Atlantic shall protect MCIm's Proprietary Information to the extent required by Applicable Law.

2.11 Bell Atlantic shall notify MCIm's National Network Management Center at least five (5) business days prior to those instances when Bell Atlantic or its subcontractors know they will be performing work reasonably anticipated to affect MCIm's service on the DC power plants which support MCIm equipment. Bell Atlantic will inform MCIm by telephone of any emergency related activity reasonably anticipated to affect MCIm's service that Bell Atlantic or its subcontractors may be performing on the DC power plants which support MCIm equipment. Notification of any emergency related activity shall be as soon as practicable so that MCIm can take any action required to monitor or protect its service.

2.12 MCIm shall submit a request to collocate equipment using the form attached as Exhibits A and B to this Attachment V. Promptly following MCIm's submission of a Collocation application, Bell Atlantic shall review the application, and within ten (10) business days, conduct a meeting with MCIm to review the details of the application to assure that it is complete.

2.12.1 Within forty-five (45) days after the application review meeting, Bell Atlantic shall tender to MCIm drawings of the proposed Collocation space. MCIm shall review the drawings and either approve them or specify changes to the space design within thirty (30) days after receiving them. Promptly thereafter, Bell Atlantic and MCIm shall agree on final drawings, specifications and charges for the requested space specified on MCIm's application. Upon MCIm's request, Bell Atlantic shall construct the Collocation space in substantial compliance with MCIm's Collocation application.

2.13 MCIm and Bell Atlantic will complete an acceptance walk through of the Collocated space constructed by Bell Atlantic. Exceptions from drawings and plans approved under Section 2.12 that would materially affect MCIm's intended use of the space that are noted by MCIm during this acceptance walk through shall be corrected, or the price otherwise adjusted, by Bell Atlantic within five (5) business days after the walk through unless otherwise agreed. The correction of these exceptions from the original Collocation application shall be at Bell Atlantic's expense.

2.14 Bell Atlantic shall provide telephone equipment drawings depicting the location, type, and cable termination requirements (*i.e.*, connector type, number and type of pairs, and naming convention) for Bell Atlantic point of termination bay(s) to MCIm upon completion of Bell Atlantic construction of the MCIm Collocation space.

2.15 Bell Atlantic shall provide drawings depicting available paths, with dimensions, for MCIm outside plant fiber ingress and egress into MCIm collocated space at the initial site implementation meeting between MCIm and Bell Atlantic within ten (10) business days after Bell Atlantic's acceptance of MCIm's request for collocated space. Such path and any areas around it in which MCIm must work to perform installation shall be free of asbestos, lead paint (unless encapsulated), and other health or safety hazards to the same extent that comparable Bell Atlantic work areas in the same premises are free of such conditions.

2.16 Bell Atlantic shall provide power cabling connectivity information, including the sizes and number of power feeders, to MCIm upon completion of Bell Atlantic construction of MCIm Collocation space.

2.17 Bell Atlantic shall provide positive confirmation to MCIm when its construction of MCIm's Collocation space is fifty percent (50%) completed. This confirmation shall also include confirmation of the scheduled completion and turnover dates.

2.18 Bell Atlantic shall make commercially reasonable efforts to provide the following information to MCIm within ten (10) business days after receipt of request from MCIm unless otherwise agreed:

2.18.1 Work restriction guidelines.

2.18.2 Bell Atlantic or industry technical publication guidelines that impact the design of virtually collocated equipment.

2.18.3 Bell Atlantic contacts (names and telephone numbers) for the following areas:

Engineering
Physical & Logical Security
Billing
Operations
Site and Building Managers
Environmental and Safety

2.18.4 Escalation process for Bell Atlantic employees (names, telephone numbers and the escalation order) for any disputes or problems that might arise in connection with MCIm's Collocation activities.

2.19 "Power" as referenced in this Section 2.19 refers to any electrical power source supplied by Bell Atlantic for MCIm Collocation equipment. It includes necessary superstructure, infrastructure, and overhead facilities, including, but not limited to, cable, cable racks and bus bars. Bell Atlantic will supply power to support collocated MCIm equipment at equipment-specific and industry standard DC and AC voltages. Bell Atlantic shall supply power to MCIm at Parity with that provided by Bell Atlantic to itself or to any third party at the premises.

2.19.1 Central Office power supplied by Bell Atlantic into the MCIm equipment area shall be supplied in the form of power feeders (cables) on cable racking into the designated MCIm equipment area. The power feeders (cables) shall support the requested quantity and capacity of MCIm equipment in accordance with the Collocation Tariff. The termination location shall be as reasonably requested by MCIm.

2.19.2 Bell Atlantic shall provide power as reasonably requested by MCIm to meet MCIm's need for the interconnection and placement of equipment in accordance with Tariff.

2.19.3 Bell Atlantic power equipment supporting MCIm's equipment shall:

2.19.3.1 Comply in material respects with applicable industry standards (*e.g.*, Bellcore, and NEBS) for equipment installation, cabling practices, and physical equipment layout;

2.19.3.2 Have redundant power feeds with physical diversity and battery back-up for MCIm equipment at Parity with that provided for similar Bell Atlantic equipment at the same premises. Power requirements for remote

switching equipment, if any is collocated, and physical diversity for power feeds where such diversity is not already available, may require special construction.

2.19.3.3 Upon MCIm's request, Bell Atlantic will provide prices and specifications for unique battery and power requirements, including those for other types of equipment that can be collocated under this Agreement;

2.19.3.4 Provide Central Office ground, connected to a ground electrode in compliance with applicable industry standards. Central Office ground for remote switching equipment, if any is collocated, may require special construction; and

2.19.3.5 Provide feeder capacity and quantity to support the equipment layout for MCIm equipment in accordance with MCIm's Collocation application. Feeder capacity for remote switching equipment, if any is collocated, may require special construction.

2.19.4 Bell Atlantic shall use commercially reasonable efforts to, within forty-five (45) days after MCIm's application:

2.19.4.1 Provide documentation submitted to and received from contractors for any contractor bids for any work being done on behalf of MCIm (except for any work that is covered by a Tariffed rate);

2.19.4.2 Provide MCIm access to its Collocation space upon completion of construction that will provide safe and secure access to the Collocation space;

2.19.4.3 Provide cabling that adheres in all material respects to Bell Communication Research ("Bellcore") Network Equipment-Building System ("NEBS") standards TR-EOP-000063; and

2.19.4.4 Provide Lock Out-Tag Out and other electrical safety procedures and devices in conformance with agreed OSHA or industry guidelines.

2.20 Bell Atlantic shall provide virtual Collocation where physical Collocation is not practical for technical reasons or because of space limitations. Bell Atlantic shall take collocator demand into account when renovating existing facilities and constructing or leasing new facilities.

2.21 Standard intervals for physical Collocation shall be one hundred twenty (120) days from the date an application is finalized and approved by the Parties. Virtual Collocation will have a standard interval of sixty (60) days from the foregoing date.

2.22 MCIm may collocate only that equipment which is used for interconnection and access to Network Elements. MCIm may collocate the quantity and type of such equipment it reasonably deems necessary in its Collocation space, provided that the equipment meets Bellcore specifications. Approved vendors will, at a minimum, be vendors Bell Atlantic currently approves for their own use. Bell Atlantic will not unreasonably withhold approval of additional vendors whose equipment meets Bellcore specifications.

2.23 MCIm may choose to lease unbundled transport from Bell Atlantic or a third carrier for the purpose of connection to MCIm collocated equipment, rather than construct to such facilities, all in accordance with FCC Rules and Regulations.

2.24 Bell Atlantic will maintain MCIm's virtually collocated equipment in Parity with how it maintains its own equipment. Such maintenance shall include the change out of electronic cards provided by MCIm and per MCIm's request.

Section 3. License

Bell Atlantic hereby grants MCIm a license to occupy any premises or rack space which contain collocated equipment as permitted hereunder, including without limit all necessary ingress and egress, all in accordance with the terms and conditions of this Agreement including this Attachment V.

EXHIBIT A

EXHIBIT A

Bell Atlantic

VIRTUAL COLLOCATION APPLICATION

DATE SENT ____/____/____ VERSION_____

I CUSTOMER INFORMATION

1. Company Name _____

   Street _____

   City/Town/State/Zip _____

2. 24 Hour Emergency Contact Number _____

3. Contact Name _____

   Telephone Number _____ Facsimile Number_____

4. Desired Service Date____/____/____

5. Activity: New ____ Augment ____ Other ____

6. Percent Interstate Usage (PIU) _____

7. Central Office CLLI Code _____

8. ACNA _____

II TYPE OF SERVICE

Initial Terminations Required: DS3 _____ DS1 _____ DS0 _____

Incremental Quantities of Desired Services:

Interface (Cross-Connect) Forecast:

	Year 1	Year 2	Year 3
DS3			
DS1			
DS0			

Service (Channel Termination) Forecast:

	Year 1	Year 2	Year 3
DS3			
DS1			
DS0			

Ex: Interface - 2 DS3s; Service - 25 DS1s, 420 DS0s with muxing provided by Bell Atlantic

Is Synchronization To Be Provided By Access Provider? Yes ☐ No ☐

Official Use Only:
Date Received: _____
D/P Received: _____

Bell Atlantic

VIRTUAL COLLOCATION APPLICATION

III EQUIPMENT REQUIREMENTS

1. **List of Access Customer's Designated Equipment**
(NOTE: Please specify the type, size and quantity of equipment to be installed so that adequate power and environmental safeguards can be provided. Also, please attach a copy of the product's Technical Description.)

Manufacturer/Model #	Size	Quantity	CLEI*

Will Bell Atlantic be Designated to Install the Equipment? Yes ☐ No ☐

If no, Provide Bell Atlantic Approved Vendor Name _____
Vendor Contact Number _____

(*) Bellcore common Language Equipment Identification TM Common Language is a Registered trademark and CLEI, CLLI, CLFI and CLCI are trademarks of Bell Communications Research, Inc. (Bellcore)

2. **List of Required Plug-in Units**
(NOTE: Please indicate the circuit number or slot where the plug-in unit is to be installed, as required by the Access Provider's practices.)

Manufacturer/Model #	Slot/Circuit #	Quantity In Service/Protection	

2

Bell Atlantic

VIRTUAL COLLOCATION APPLICATION

4. **List of Required Test/Maintenance Spare Equipment**

Manufacturer/Model #	Qty	CLEI
_____	_____	_____
_____	_____	_____
_____	_____	_____

Heat Dissipation Requirements: _____ (WATTS)

IV OUTSIDE PLANT FIELD SURVEY

1. Cable Information

   A. Direction from where cable will originate:

   _____
   _____
   _____
   _____

   B. *Have Licensing Agreements for this location been established (e.g., conduit)?*
   Yes ☐ No ☐ (Note: If Yes, please provide Contract Number.)

   C. Contract Number _____

   D. Dual Building Entrance Requested Yes ☐ No ☐

   E. Dual Riser Cables Requested Yes ☐ No ☐

2. Cable Requirements

	Feeder	Riser
A. Number of Cables To Be Placed	_____	_____
B. Size of Cables (Diameter)	_____	_____
C. Number of Fibers per Cable	_____	_____

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VIRTUAL COLLOCATION APPLICATION

IV OUTSIDE PLANT FIELD SURVEY (Cont'd)

3. Cable Makeup

A. Cable Designation and Count _____

B. Name of Fiber Manufacturer _____

C. Name of Cable Manufacturer _____

D. Type of Single Mode Fiber Used (e.g., Dual Window, Dispersion Shifted)

_____

E. Loss Decibels Per Kilometer _____

V REMARKS (New Customers, please provide bill to information here)

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

4

EXHIBIT B

EXHIBIT B

Bell Atlantic

PHYSICAL COLLOCATION APPLICATION

DATE SENT ____/____/____ VERSION_____

I CUSTOMER INFORMATION Issue 1: 7/22/96

1. Company Name _____
   Street _____
   City/Town/State/Zip _____
2. 24 Hour Emergency Contact Number _____
3. Contact Name _____
   Telephone Number _____ Facsimile Number_____
4. Desired Service Date____/____/____
5. Activity: New ____ Augment ____ Other ____
6. Percent Interstate Usage (PIU) _____
7. Central Office CLLI Code _____
8. ACNA _____

II TYPE OF SERVICE

Initial Terminations Required: DS3 _____ DS1 _____ DS0 _____

Incremental Quantities of Desired Services:

Interface (Cross-Connect) Forecast	Year 1	Year 2	Year 3
DS3 (Point to point)			
DS3 (Multiplexed)			
DS1			
DS0 (Unbundled Loops)			

Service (Channel Termination) Forecast	Year 1	Year 2	Year 3
DS3			
DS1			
DS1			

Ex: Interface Year 1: 3 DS3s Point to Point, 3 DS3s Muxed, 672 Unbund DS0s
Service Year 1: 3 DS3s, 84 DS1s (Muxed DS3s)

Official Use Only:
Date Received: _____
D/P Received: _____

Bell Atlantic

PHYSICAL COLLOCATION APPLICATION

III FLOOR SPACE REQUIREMENTS

1. Number of equipment frames to be installed _____
2. Amount of space required _____
   (Square foot increments are based on tariff)
3. Attach preferred floor plan layout for space (footprint)
4. Are there other environmental, enclosure or security requirements? Yes___ No___
   (If yes, additional charges may apply. Please attach details of additional requirements.)

IV. TECHNICAL EQUIPMENT SPECIFICATIONS

1. DC Power Requirements
   A. -48v Battery and Ground, A & B supplies number of (A & B) feeds_____
   B. Number of AMPs required per A & B feed (maximum 60 amp)_____
2. Special AC Power Requirements ? Yes ____No_____
   (If yes, additional charges may apply. Please attach details if required.)
3. Heat Dissipation Requirements_____(WATTS)
4. List of Access Customer's Installed Equipment
   (Please specify type, size and quantity so that adequate power and environmental safeguards can be provided. Also, please attach a copy of the product's technical description.)

Manufacturer/Model #	Physical Dimensions	Qty
1._____	_____	____
2._____	_____	____
3._____	_____	____
4._____	_____	____

Total anticipated equipment load_____ (AMPS)

2

Bell Atlantic

PHYSICAL COLLOCATION APPLICATION

V OUTSIDE PLANT FIELD SURVEY

1. Cable Information

   A. Direction from where cable will originate

   _____
   _____
   _____
   _____

   B. Have Licensing Agreements for this location been established (e.g., conduit)?
   Yes _____ No _____ (If Yes, please provide Contract Number)

   C. Contract Number _____

   D. Dual Building Entrance Requested Yes ____ No ____

   E. Dual Riser Cables Requested Yes ____ No ____

2. Cable Requirements

	Feeder	Riser
A. Number of Cables To Be Placed	_____	_____
B. Size of Cables (Diameter)	_____	_____
C. Number of Fibers per Cable	_____	_____

3. Cable Makeup

   A. Cable Designation and Count _____

   B. Name of Fiber Manufacturer _____

   C. Name of Cable Manufacturer _____

   D. Type of Single Mode Fiber Used (e.g., Dual Window, Dispersion Shifted)
   _____

   E. Loss Decibels per Kilometer _____

3

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PHYSICAL COLLOCATION APPLICATION

VI ACCESS CUSTOMER'S VENDOR SELECTION

1. **Engineering Vendor**_____
   Address _____
   _____
   Telephone Number_____

2. **Outside Plant Vendor**_____
   (For cable placement)
   Address _____
   _____
   Telephone Number_____

3. **Outside Plant Vendor**_____
   (For cable splicing)
   Address _____
   _____
   Telephone Number_____

4. **Installation Vendor**_____
   (For customer's equipment)
   Address _____
   _____
   Telephone Number_____

5. **Installation Vendor**_____
   (For riser cable)
   Address _____
   _____
   Telephone Number_____

VII CERTIFICATE OF INSURANCE

Certificate of Insurance *must accompany all applications for new sites*
If this is a new site, please indicate that the certificate is included. Yes ___ No___

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Bell Atlantic

PHYSICAL COLLOCATION APPLICATION

VIII REMARKS (New Customers, please provide bill to information here)

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